

Samuel Costa

COMPUTER SCIENCE & DATA SCIENCE STUDENT

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EDUCATION & AWARDS

Otterbein University – Westerville, OH

Bachelor of Science in Computer Science, Minor in Data Science

Expected Graduation: April 2026 · **GPA:** 3.0

Relevant Coursework:

Data Structures, Computer Systems, Operating Systems & Networking, Applied Artificial Intelligence, Software Engineering, Data Science with R, Statistics II

Honors & Scholarships (2022):

OC Ammons-Thomas Award · Choose Ohio First Scholarship · Albright-McCabe Scholarship · Provost's Scholarship

LANGUAGES

Portuguese (Native) · English (Fluent - C2 Level)

EXPERIENCE & SKILLS

Languages & Tools: Java · Python · C · R · SQL · NoSQL · Dart · Git/GitHub · JUnit · TensorFlow · Ubuntu · Linux

Frameworks & Tools: JavaFX · Java Swing · Flutter · Supabase · ObjectBox

Concepts: OOP · Networking · Data Analytics · Data Modeling · Agile (Scrum) · Waterfall

PROJECTS

Tutor/Student Pairing Generator

Team Project | Java, JavaFX, CSS | Agile

Developed an interactive desktop application to automate the pairing of tutors and students based on availability data provided in Excel spreadsheets.

- Collaborated with a team of 4 developers using Scrum methodology, including regular stand-ups and sprint planning to ensure iterative progress.
- Met with the client throughout development to gather requirements, present demos, and incorporate feedback into future iterations.
- Engineered a system that ingests Excel files, applies graph algorithms to analyze availability overlaps, and displays editable tutor-student pairings through a dynamic JavaFX interface.
- Enabled seamless export of finalized pairings back to Excel, transforming a manual, weeks-long scheduling process into a streamlined, error-resistant task completed in seconds.

Scrabble Game Implementation

Team Project | Java, Java Swing | Waterfall

Developed a fully functional Scrabble game with multiplayer support, tile-based scoring logic, and rule enforcement.

- Collaborated with a development team to implement core Scrabble mechanics, including tile placement, word validation, and scoring with letter/word multipliers.
- Composed, performed, and produced the game's original background music, enhancing user experience with custom audio.
- Added networking capabilities to support real-time multiplayer gameplay between remote users.
- Developed a sleek, interactive user interface using Java Swing, overcoming layout and rendering challenges to deliver a smooth gameplay experience.

D&D Master Assistant

Personal Side Project | Java, Flutter, Dart, Supabase, ObjectBox | Cross-Platform App Development (In Progress)

Designing and developing a digital assistant app for Dungeon Masters to streamline campaign management, enhance gameplay, and support my learning and understanding of app development.

- Initially developed in Java before transitioning to Flutter and Dart to achieve seamless cross-platform compatibility on mobile and desktop devices.
- Building features for managing multiple campaigns, player and monster tracking, combat automation with detailed logging, and dice rolling with historical records.
- Applying modern UI/UX principles with Flutter to create a responsive, intuitive, and visually appealing user interface across platforms.
- Utilizing Supabase and ObjectBox for cloud and local data storage, enabling synchronization and offline access.
- Currently in active development with iterative feature implementation and continuous testing.